



ORDINANCE NO. 5701

AN ORDINANCE ADOPTING THE 2015 EDITION OF THE INTERNATIONAL CODE COUNCIL INTERNATIONAL FIRE CODE INCLUDING CERTAIN APPENDICES IN THAT CODE, AND OTHER LOCAL AMENDMENTS, AND AMENDING CHAPTER 9-36 OF THE CITY OF MEMPHIS, CODE OF ORDINANCES.

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**WHEREAS**, the Memphis City Council desires to adopt and maintain a comprehensive set of coordinated technical codes specifically related to fire prevention and to update those codes to assure the use of safe and effective fire protection measures in the construction and maintenance of commercial and residential buildings and structures within the Memphis community; and

**WHEREAS**, it has been determined that it is necessary and prudent to adopt newer code editions covering these important public safety requirements related to fire prevention and control which have previously been covered by regulations in the now obsolete 2009 edition of the *ICC International Fire Code*; and

**WHEREAS**, certain provisions of the 2015 Edition of the *ICC International Fire Code*, when adopted by the Council will provide a contemporary and internally consistent code for such fire prevention effort; and

**WHEREAS**, the Council believes it to be in the best interest of the citizens of Memphis that the 2015 Edition of the *ICC International Fire Code* be adopted.

**NOW, THEREFORE BE IT ORDAINED BY THE MEMPHIS CITY COUNCIL,**

**(a)** That Section 9-36-1 is hereby amended to read as follows:

The 2015 Edition of the *ICC International Fire Code* is hereby adopted as the Fire Prevention Code of the City of Memphis, and such code shall have the same force and effect as if set out in full herein. The following Appendices of the 2015 Edition of the *ICC International Fire Code*, or as locally drafted, are also adopted. **Appendix B** – Fire-Flow Requirements for Buildings, **Appendix E** – Hazard Categories, **Appendix F** – Hazard Ranking, and **Appendix G** -Cryogenic Fluids – Weight and Volume Equivalents. Any appendix not listed in this ordinance is specifically not adopted; and

**(b) BE IT FURTHER ORDAINED**, That Section 9-36-4 is hereby amended to provide that the 2015 Edition of the *International Fire Code* is amended by adoption of the local amendments which shall read as follows:

**The International Fire Code, 2015 Edition, is hereby amended as set out in this Article. All references to Chapter, Section and sub-section numbers in the text of the amendments hereafter set out shall be construed as if followed by the words, “of the Fire Code” unless clearly indicated to the contrary.**

## **2015 International Fire Code Amendments**

### **Chapter 1 Scope and Administration**

**103.2 Appointment** is amended to delete the entire section and substitute in lieu thereof the following:

**103.2 Fire Code Official Qualifications.** The fire code official shall have at least 10 years experience in fire prevention, at least 5 years shall have been in fire prevention inspections and in responsible charge work. The fire code official shall not be removed from office except for cause and after full opportunity to be heard on specific and relevant charges before the governing authority.

**103.3 Deputies** is amended to delete the entire section and substitute in lieu thereof the following:

**103.3 Fire Inspector Qualifications.** The fire official, with the approval of the governing authority, may appoint such number of officers, inspectors, assistants and other employees as shall be authorized from time to time. A person shall not be appointed as a fire prevention inspector who has not had at least 5 years experience with a fire department. Such experience shall include training for the inspections of premises. Other persons may be appointed subject to demonstrable training, certification or education approved by the fire official.

**104.6 Official records** is amended to delete the entire section and subsections 104.6.1 Approvals, 104.6.2 Inspections, 104.6.3 Fire records, and 104.6.4 Administrative without substitution.

**105.4.6 Retention of construction documents** is amended to delete the first sentence, “One set of construction documents shall be retained by the fire code official for a period of not less than 180 days from date of completion of the permitted work, or as required by state or local laws,” without substitution.

**105.6.28 LP-gas** is amended to add the following sentence at the end of section 1 after the word “gas”:

“It shall be the responsibility of the owner of the LP container to obtain the permit.”

**105.6.45 Temporary membrane structures and tents** is amended to delete the second exception and substitute in lieu thereof the following:

“2. Funeral tents and curtains or extensions attached thereto, when used for funeral services.”

**105.6.45 Temporary membrane structures and tents** is further amended by adding the following new sub-section:

**105.6.45.1 Responsibility.** It shall be the responsibility of the owner of the tent to obtain the permit.

**105.7.18 Temporary membrane structures and tents** is amended to delete the third exception without replacement.

**105.7.18 Temporary membrane structures and tents** is further amended by adding the following new sub-section:

**105.7.18.1 Responsibility.** It shall be the responsibility of the owner of the tent to obtain the permit.

**108 Board of appeals** is amended by adding the following new sub-section:

**108.4 Notice of appeal.** Notice of appeal shall be in writing and filed with the fire code official within 15 days of a decision that is rendered by the fire code official.

**109.4 Violation penalties** is amended to delete the words “guilty of a [SPECIFY OFFENSE], punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment,” and replace with the words “subject to a citation and/or fines as determined by a court of law”.

**111.4 Failure to comply** is amended to delete the words “liable to a fine of not less than [AMOUNT] dollars or more than [AMOUNT] dollars,” and replace with the words “guilty of a civil offense subject to a citation and/or fines as determined by a court of law”.

**112.1 Authority to disconnect service utilities** is amended to delete the last sentence, “If not notified prior to disconnection, then the owner, the owner’s authorized agent or occupant of the building, structure or service system shall be notified in writing as soon as practical thereafter,” without substitution.

## **Chapter 2 Definitions**

**Section 202 General Definitions** is amended by adding the following definitions:

**Automated external defibrillator (AED):** A medical device heart monitor and defibrillator that:

(1) Has received approval of its premarket notification, filed pursuant to 21 U.S.C. §360(R), from the United States Food and Drug Administration.

(2) Is capable of recognizing the presence or absence of ventricular fibrillation or rapid tachycardia, and is capable of determining, without intervention by an operator, whether defibrillation should be performed; and

(3) Upon determining that defibrillation should be performed, automatically charges and requests delivery of an electrical impulse to an individual's heart.

**Fenced compounds:** Properties such as but not limited to, car lots, storage lots, warehouses, retail or wholesale businesses, night watchmen staffed facilities, or the facility is open during business hours and uninhabited when closed, etc.

**Light wood truss:** Manufactured from the natural wood fiber in trees, cut and dried to nominal dimensions such as 2 x 4, 2 x 6, 2 x 8, 2 x 10, 2 x 12, etc., which is used in floor and ceiling systems. These wooden structures are composed of a combination of members such as chords, diagonals, and web members, usually in same triangular arrangements so as to constitute a rigid framework.

**Chord:** A principal member of a truss which extends from one end to the other, primarily to resist bending; usually one of a pair of such members.

**Diagonal:** In a framed structure, an inclined member running across a panel as in a truss.

**Web:** The portion of a truss or girder between the chords or flanges, whose principal function is to resist shear on the span.

**Mobile food preparation vehicle:** A mobile food preparation vehicle is any vehicle that includes a self-contained or attached trailer kitchen in which food is prepared, processed or stored and used to sell and dispense food to the ultimate consumer. Mobile units must be mobile at all times during operation. The unit must be on wheels (excluding boats) at all times. Any mobile food unit that removes such wheels or becomes stationary must meet Tennessee Department of Health Regulations Chapter 1200-23-1 et seq. in its entirety. This definition does not include pushcarts as regulated by city codes and prohibited from selling potentially hazardous foods by the state department of health, nor vehicles from which only ice cream and other frozen non-hazardous food products are sold, nor vehicles operating under special event permit, nor vehicles intended for private recreation.

**Residential communities:** A community shall be defined as a location at which a group resides and/ or dwells, including but not limited to, apartments, hotels, modular home communities, private subdivision, etc.

## **Chapter 3 General Requirements**

**302.1 Definitions** is amended to add the following definition term:

### **MOBILE FOOD PREPARATION VEHICLE.**

**308.1.4 Open-flame cooking devices** is amended to delete the second and third exception and substitute in lieu thereof the following:

“2. Electric grills not employing open flames for the cooking medium are permitted.”

**311.5 Placards** is amended to delete the words “as required by Sections 311.5.1 through 311.5.5” after the word “marked”.

**311.5.1 Placard location** is deleted without substitution.

**311.5.2 Placard size and color** is deleted without substitution.

**311.5.3 Placard date** is deleted without substitution.

**311.5.4 Placard symbols** is deleted without substitution.

**311.5.5 Informational use** is deleted without substitution.

**315.1 General** is amended to add the following sentence and exception after the section following the first sentence:

“Outdoor pallet storage shall be in accordance with section 315.7.

Exception: Wood and wood composite pallets stored outdoors at pallet manufacturing and recycling facilities and complying with Section 2810.”

**Chapter 3** shall be amended by adding the following new section:

**Section 315.7 Outdoor Pallet Storage.** Pallets stored outdoors shall comply with Sections 315.7 through 315.7.7. Pallets stored within a building shall be protected in accordance with Chapter 32.

**315.7.1 Storage beneath overhead projections from buildings.** Where buildings are equipped throughout with an automatic sprinkler system, the outdoor storage of pallets under eaves, canopies or other projections or overhangs are prohibited except where automatic sprinklers are installed under such eaves, canopies or other projections or overhangs.

**315.7.2 Distance to lot line.** Pallet storage shall not be located within 10 feet (3048 mm) of a lot line.

**315.7.3 Storage height.** Pallet storage shall not exceed 20 feet (6096 mm) in height.

**315.7.4 Pallet pile stability and size.** Pallet stacks shall be arranged to form stable piles. Individual pallet piles shall cover an area not greater than 400 square feet (37 m<sup>2</sup>).

**315.7.5 Pallet types.** Pallets shall be all wood, with slatted or solid top or bottom, with metal fasteners, or shall be plastic or composite pallets, listed and labeled in accordance with UL 2335 or FM4996. Plastic pallets shall be both solid and gridded deck, independent of the pallet manufacturing process, type of resin used in fabrication or geometry of the pallet.

**315.7.6 Pile separation distances.** In addition to the other requirements of this section, pallet stacks and piles shall be separated in accordance with Sections 315.7.6.1 and 315.7.6.2.

**Table 315.7.6(1) Separation Distance between Wood Pallet Stacks and Buildings**

Wall Construction	Opening Type	Wood Pallet Separation Distance (feet)		
		≤ 50 Pallets	51 to 200 Pallets	> 200 Pallets
Masonry	None	2	2	2
Masonry	Fire-rated glazing with open sprinklers	2	5	20
Masonry	Fire-rated glazing	10	5	20
Masonry	Plain glass with open sprinklers	10	5	20
Noncombustible	None	10	5	20
Wood with open sprinklers	-	10	5	20
Wood	None	15	30	90
Any	Plain glass	15	30	90

For SI: 1 foot = 304.8 mm.

**Table 315.7.6(2) Separation Distance between Plastic Pallet Stacks and Buildings**

Wall Construction	Opening Type	Plastic Pallet Separation Distance (feet)		
		≤ 50 Pallets	51 to 200 Pallets	> 200 Pallets
Masonry	None	2	2	2
Masonry	Fire-rated glazing with open sprinklers	10	20	50
Masonry	Fire-rated glazing	15	40	100
Masonry	Plain glass with open sprinklers	15	40	100
Noncombustible	None	15	40	100
Wood with open sprinklers	-	15	40	100
Wood	None	30	80	150
Any	Plain glass	30	80	150

For SI: 1 foot = 304.8 mm.

**Table 315.7.6(3) Separation From Other Pallet Piles and On-Site Storage (Wood Pallets)**

	Wood Pallet Separation Distance (feet)		
	≤ 50 Pallets	51 to 200 Pallets	> 200 Pallets
Between pallet piles	7.5	15	45
Other on-site storage	7.5	15	45

For SI: 1 foot = 304.8 mm.

**Table 315.7.6(4) Separation From Other Pallet Piles and On-Site Storage (Plastic Pallets)**

	Plastic Pallet Separation Distance (feet)		
	≤ 50 Pallets	51 to 200 Pallets	> 200 Pallets
Between pallet piles	15	40	75
Other on-site storage	15	40	75

For SI: 1 foot = 304.8 mm.

**315.7.6.1 Building separation.** Pallet stacks and piles shall be separated from buildings in accordance with Table 315.7.6(1) for wood pallets and Table 315.7.6(2) for plastic pallets.

**315.7.6.2 Separation from other pallets and on-site storage.** Pallets shall be separated from other pallet piles and other storage in accordance with Table 315.7.6(3) for wood pallets and Table 315.7.6(4) for plastic pallets.

**315.7.7 Prohibited locations.** Pallets shall not be stored underneath high-voltage transmission lines, elevated roadways or elevated railways.

**Chapter 3** shall be amended by adding the following new section:

**Section 319 Mobile Food Preparation Vehicles**

**319.1 General.** Mobile food preparation vehicles that are equipped with appliances that produce smoke or grease-laden vapors shall comply with this section.

**319.2 Reserved.**

**319.3 Exhaust hood.** Cooking equipment that produces grease-laden vapors shall be provided with a kitchen exhaust hood in accordance with Section 609.

**319.4 Fire protection.** Fire protection shall be provided in accordance with Sections 319.4.1 and 319.4.2.

**319.4.1 Fire protection for cooking equipment.** Cooking equipment shall be protected by automatic fire extinguishing systems in accordance with Section 904.12 when Section 319.3 applies.

**319.4.2 Fire extinguisher.** Portable fire extinguishers shall be provided in accordance with Section 906.4 through 906.8.

**319.5 Appliance connection to fuel supply piping.** Gas cooking appliances shall be secured in place and connected to fuel-supply piping with an appliance connector complying with ANSI Z21.69/CSA 6.16. The connector installation shall be configured in accordance with the manufacturer's installation instructions. Movement of appliances shall be limited by restraining devices installed in accordance with the connector and appliance manufacturers' instructions.

**319.6 Cooking oil storage containers.** Cooking oil storage containers within mobile food preparation vehicles shall have a maximum aggregate volume not more than 120 gallons (454 L), and shall be stored in such a way as to not be toppled or damaged during transport.

**319.7 Cooking oil storage tanks.** Cooking oil storage tanks within mobile food preparation vehicles shall comply with Sections 319.7.1 through 319.7.5.2.

**319.7.1 Metallic storage tanks.** Metallic cooking oil storage tanks shall be *listed* in accordance with UL 80 or UL 142, and shall be installed in accordance with the tank manufacturer's instructions.

**319.7.2 Nonmetallic storage tanks.** Nonmetallic cooking oil storage tanks shall be installed in accordance with the tank manufacturer's instructions and shall comply with both of the following:

1. Tanks shall be *listed* for use with cooking oil, including maximum temperature to which the tank will be exposed during use.
2. Tank capacity shall not exceed 200 gallons (757 L) per tank.

**319.7.3 Cooking oil storage system components.** Metallic and nonmetallic cooking oil storage system components shall include, but are not limited to, piping, connections, fittings, valves, tubing, hose, pumps, vents and other related components used for the transfer of cooking oil.

**319.7.4 Design criteria.** The design, fabrication and assembly of system components shall be suitable for the working pressures, temperatures and structural stresses to be encountered by the components.

**319.7.5 Tank venting.** Normal and emergency venting shall be provided for cooking oil storage tanks.

**319.7.5.1 Normal vents.** Normal vents shall be located above the maximum normal liquid line, and shall have a minimum effective area not smaller than the largest filling or withdrawal connection. Normal vents are not required to vent to the exterior.

**319.7.5.2 Emergency vents.** Emergency relief vents shall be located above the maximum normal liquid line, and shall be in the form of a device or devices that will relieve excessive internal pressure caused by an exposure fire. For nonmetallic tanks, the emergency relief vent shall be allowed to be in the form of construction. Emergency vents are not required to discharge to the exterior.

**319.8 LP-gas systems.** Where LP-gas systems provide fuel for cooking appliances, such systems shall comply with Chapter 61 and Sections 319.8.1 through 319.8.6.

**319.8.1 Maximum aggregate volume.** The maximum aggregate capacity of LP-gas containers transported on the vehicle and used to fuel cooking appliances only shall not exceed 200 pounds (91 kg) propane capacity.

**319.8.2 Protection of container.** LP-gas containers installed on the vehicle shall be securely mounted and restrained to prevent movement. LP-gas containers shall be located in accordance with the requirements of NFPA 96, *Ventilation Control and Fire Protection of Commercial Cooking Operations*, Annex B, Mobile and Temporary Food Operations.

**319.8.3 LP-gas container construction.** LP-gas containers shall be manufactured in compliance with the requirements of NFPA 58.

**319.8.4 Protection of system piping.** LP-gas system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage, and damage from vibration.

**319.8.5 LP-gas alarms.** A listed LP-gas alarm shall be installed within the vehicle in the vicinity of LP-gas system components, in accordance with the manufacturer's instructions.

**319.8.6 Smoking.** Mobile food preparation vehicles using LP-gas systems shall post visible and legible "No Smoking" sign(s) directly adjacent to the LP-gas container(s).

**319.9 CNG systems.** Where CNG systems provide fuel for cooking appliances, such systems shall comply with Sections 319.9.1 through 319.9.4.

**319.9.1 CNG containers supplying only cooking fuel.** CNG containers installed solely to provide fuel for cooking purposes shall be in accordance with Sections 319.9.1.1 through 319.9.1.3.

**319.9.1.1 Maximum aggregate volume.** The maximum aggregate capacity of CNG containers transported on the vehicle shall not exceed 1,300 pounds (590 kg) water capacity.

**319.9.1.2 Protection of container.** CNG containers shall be securely mounted and restrained to prevent movement. Containers shall not be installed in locations subject to a direct vehicle impact.

**319.9.1.3 CNG container construction.** CNG containers shall be an NGV-2 cylinder.

**319.9.2 CNG containers supplying transportation and cooking fuel.** Where CNG containers and systems are used to supply fuel for cooking purposes in addition to being used for transportation fuel, the installation shall be in accordance with NFPA 52.

**319.9.3 Protection of system piping.** CNG system piping, including valves and fittings, shall be adequately protected to prevent tampering, impact damage and damage from vibration.

**319.9.4 Methane alarms.** A listed methane gas alarm shall be installed within the vehicle in accordance with manufacturer's instructions.

**319.10 Maintenance.** Maintenance of systems on mobile food preparation vehicles shall be in accordance with Sections 319.10.1 through 319.10.3.

**319.10.1 Exhaust system.** The exhaust system, including hood, grease-removal devices, fans, ducts and other appurtenances, shall be inspected and cleaned in accordance with Section 609.3.

**319.10.2 Fire protection systems and devices.** Fire protection systems and devices shall

be maintained in accordance with Section 901.6.

**319.10.3 Fuel gas systems.** LP-gas containers installed on the vehicle and fuel-gas piping systems shall be inspected annually by an approved inspection agency or a company that is registered with the U.S. Department of Transportation to requalify LP-gas cylinders, to ensure that system components are free from damage, suitable for the intended service and not subject to leaking. CNG containers shall be inspected every 3 years in a qualified service facility. CNG containers shall not be used past their expiration date as listed on the manufacturer's container label. Upon satisfactory inspection, the approved inspection agency shall affix a tag on the fuel gas system or within the vehicle indicating the name of the inspection agency and the date of satisfactory inspection.

## **Chapter 4 Emergency Planning and Preparedness**

**401.1 Scope** is amended to delete the exception without replacement.

**402.1 Definitions** is amended to add the following definition term:

**“AUTOMATED EXTERNAL DEFIBRILLATOR (AED).”**

**Chapter 4** shall be amended by adding the following new section:

### **Section 408 Automated External Defibrillators**

**408.1 Where required.** An Automated External Defibrillator shall be installed and maintained in newly constructed or newly classified Group A, B, E, F, H, I, M, R-1, R-2, R-4 and S occupancies with an occupant load of 300 or more.

**408.2 Location.** Automated External Defibrillators shall be located in conspicuous locations where they will be readily accessible and immediately available for use. AED devices, where required, shall be installed in sufficient numbers and in locations so that an AED device shall be accessible within three (3) minutes in the event of an emergency, in accordance with American Heart Association recommendations.

**408.2.1 Unobstructed and unobscured.** Automated External Defibrillators shall not be obstructed or obscured from view. Means shall be provided within occupancies and at outdoor public assemblages and events to indicate the location of AEDs.

**408.2.2 Cabinets.** Cabinets used to house Automated External Defibrillators shall not be locked.

**Exceptions:**

1. Where Automated External Defibrillators subject to malicious use or damage are provided with a means of ready access.

2. In Group I-3 occupancies and in mental health areas in Group I-2 occupancies, access to Automated External Defibrillators shall be permitted to be locked or to be located in staff locations provided the staff has keys.

**408.3 General requirements.** Automated External Defibrillators and the programs for their use shall comply with the requirements set forth in the Tennessee Code Annotated and the rules adopted by the Tennessee Department of Health.

**408.3.1 Required Maintenance.** Automated External Defibrillators shall be maintained and tested in accordance to the manufacturer's operational guidelines. Written records of all maintenance and testing performed on AEDs shall be maintained.

**408.3.2 Registration.** Automated External Defibrillators shall be registered with the primary provider of emergency medical services where the defibrillator is located. A copy of the required AED program and plan for each installation shall be included with the registration.

## **Chapter 5 Fire Service Features**

**502.1 Definitions** is amended to add the following definition terms:

**FENCED COMPOUNDS.  
RESIDENTIAL COMMUNITIES.**

**503.2.5 Dead ends** is amended to add the following sentence after the section following the word "apparatus":

"Turnarounds required by this section shall comply with Table D103.4 Requirements for Dead-End Fire Apparatus Access Roads in Appendix D of this code."

**503.6 Security gates** is amended to delete the entire section and substitute in lieu thereof the following:

**503.6 Security gates.** The installation of security gates across a fire apparatus access road shall be approved by the Fire Official. Where security gates are installed, they shall have an approved means of emergency operation. Any gated and/or fenced community shall have at least one 20 foot opening gate which shall be designated as the Fire Department primary access. This gate shall conform to sections 503.6.1.1 through 503.6.1.6 and, if automated, shall be siren activated and equipped with both primary and secondary overrides.

**Exception: Group R-3 occupancies are exempt from the requirements of this section when the fenced area is for a single occupancy.**

**503.6.1 Automatic gates.** All automatic gates on required fire apparatus access roads, as determined by the Fire Official, shall provide approved override and power-off equipment. This override system shall provide controls to open and override timer functions for emergency access and power off equipment for manual operation.

**503.6.1.1 Emergency override.** Emergency override of all automated gate systems shall operate with power on or off. The emergency override system shall consist of a fire access housing designed as follows: The access box shall be red in color and display “Fire Dept.” or “Fire Access” in white letters on the face plate. The face plate shall be hinged and designed to accept a Medeco padlock, keyed to the Memphis Fire Department access key. The Fire Access housing shall be equipped with an internal switch so as when the pad lock is removed and the face plate is opened it will signal the automated gate to open. The automated gate shall remain open as long as the face plate remains open. Upon closing of the face plate and reinserting the Medeco pad lock, the automated gate shall return to normal operation. The Fire Access housing shall be installed in a manner as to be plainly visible from the cab of the approaching emergency vehicle.

**503.6.1.2 Manual disconnects.** All automated entry gates shall be equipped with Medeco padlocked disconnects for use in the event that the power supply to the automated gate fails or the Fire Access housing device fails to open the gate.

**503.6.1.2.1** For a sliding gate, the rear chain attachment point at which the chain connects to the physical gate shall be padlocked and secured with a Memphis Fire Department keyed Medeco lock. If the disconnect is not accessible from the public side or the secured sides of the gate, a walk gate padlocked with a Memphis Fire Department keyed Medeco lock shall be installed to allow access to the disconnect.

**503.6.1.2.2** For a swing gate, the attachment point of the swing arm to the gate shall be equipped with a disconnect pin that shall be padlocked. As with the slide style gate, this pin shall be accessible from both the public and secured sides of the gate

**503.6.1.3 Additional gates.** If a community design prevents emergency equipment from accessing any area of the property from the primary access gate, it may be deemed necessary by the Fire Official that more than one Fire Department access gate is required. Additional emergency access gates shall conform to the same standards as the primary gate, unless the Fire Marshal declares these gates to be secondary, and allows them to be padlock secured with a Memphis Fire Department keyed Medco lock, interlocked with the owners lock, rather than being automated.

**503.6.1.4 Locking access gates.** If locked, gates in fenced compounds shall be padlock secured with a Memphis Fire Department keyed Medeco padlock, interlocked with the owner’s lock.

**503.6.2 Access to hydrants.** The Fire Official shall require all fences that impede access to hydrants, whether from the street or to the structure, to have 48" walk gates installed at or near those hydrants. To allow proper access to the hydrant for fire fighting purposes, these fences shall not be located within a 10' radius of the center line of the hydrant. Additionally, long runs of fencing that block access to buildings shall require the installation of walk gates at intervals not exceeding 300 linear feet. Gates installed at hydrants may be included to meet this requirement. If locked, required walk gates shall be equipped with Medeco locks properly keyed for Memphis Fire Department use.

**505 Premises identification** is amended to add the following new sub-section:

**505.3 Identifying emblems for structures with light wood truss construction**

**505.3.1 Emblem permanently affixed.** The identifying emblem shall be permanently affixed as prescribed by city ordinance at all buildings having light wood truss construction. This section shall not apply to one and two family dwellings.

**505.3.2 Emblem description.** The identifying emblem shall be in the shape of an isosceles triangle with a vertical height of six (6) inches and a horizontal length of twelve (12) inches. The background of the emblem shall be made of a white reflective material and all lettering thereon shall be made of a red reflective material, said lettering having a minimum height of at least four (4) inches with a one-half (1/2) inch stroke.

The emblem shall contain the following designations to identify the presence of wood trusses in the structure:

- (1) "F" shall designate a floor with truss construction.
- (2) "R" shall designate a roof with truss construction.
- (3) "F/R" shall designate both a floor and roof truss construction.

**505.3.3 Location of emblem.** The emblem shall be permanently affixed at one of the following locations:

(1) Where a building or group of buildings has an approved fire apparatus access drive(s) meeting the requirements of Section 503 of the International Fire Code, 2015 edition, emblems shall be placed at each entrance on the left side of each drive at a height of 3 to 5 feet above ground, no more than 3 feet from the curb line; or,

(2) Where a building or group of buildings do not have approved fire apparatus access drive(s) immediately adjacent to the building, the emblem shall be affixed to each building on the address side of the building visible to approaching fire companies; or,

(3) At such other location(s) approved by the Fire Official.

If a building exceeds 12 tenant spaces or 12,000 square feet, additional emblems shall be provided on the building at locations designated by the Fire Official. These emblems shall be installed and maintained by the owner of the structure(s).

**507.3 Fire flow** is amended to add the following words after the end of the last sentence following the word “method”:

“Fire flows required by this section shall comply with Appendix B Fire-Flow Requirements for Buildings as amended in this code.”

**507.3** is further amended by adding the following new sub-section:

**507.3.1 Fire Hydrant systems** shall be designed such that each individual fire hydrant on the system shall be capable of flowing a minimum of 1500 gallons per minute (gpm) at 20 pounds per square inch (psi)(138kPa) residual pressure.

**507.5.1 Where required** is amended to delete the numbers “400 (122 m)” in the first sentence and replace with the numbers “500 (152 m)”. This section shall be further amended to delete Exceptions 1 and 2 without substitution.

**507.5.2 Inspection, testing and maintenance** is amended to add the following new sections:

**507.5.2.1 Private hydrants periodic inspection, testing, and maintenance.** Hydrants shall be checked monthly to make sure they are not obstructed by storage, weeds, etc., conveniently accessible, visible and with outlet caps in place. At least once a year, they shall be opened and closed to ensure proper operation and drainage in compliance with the International Fire Code, as amended, and shall be properly lubricated. All such inspections, tests and maintenance shall be performed by a fire protection company licensed by the State of Tennessee. Records of all such inspections, tests, and maintenance activities shall be submitted to the fire official. Such records shall also be kept on the premises and shall be available to the fire official upon request.

**507.5.2.2 Notice to inspect private fire hydrant.** Upon failure of any private fire hydrant owner within the city to properly inspect, test and maintain such private fire hydrant in accordance with the law, it shall be the duty of the fire services division to serve a notice on such owner to inspect their fire hydrant within twenty (20) days of the service of such notice. Such notice may be served personally on the owner by mailing same, by registered or certified mail, to owner’s last known address, or it may be posted on the property on which such fire hydrant is located. Service of notice by any of the above methods shall be due notice to such owner. Should the owner or its responsible agent fail to inspect all private fire hydrants on said property following notice as set out above, then the fire services division may enter such property or premises, directly or through their designated contractor, for the purpose of inspecting, testing, and maintaining such fire hydrants.

**507.5.2.3 Inspection by City.** In addition to the penalties provided for in Section 1-24-1 of the City Code of Ordinances, any owner of a private fire hydrant in the city who fails or refuses to inspect, test and maintain such fire hydrants in accordance with the notice mentioned in section 507.5.2.2 shall be liable for a penalty of two hundred dollars (\$200) per day for each day of non-compliance with the said notice. This ordinance is deemed to

be an environmental ordinance and shall be enforced in courts having appropriate jurisdiction over such subject matter.

**Chapter 5** shall be amended by adding the following new section:

**Section 511 Electric security fence installations**

**511.1 Electric security fence installations.** All new and existing electric security fence installations shall be equipped with the following features:

1. An approved manual disconnect shall be provided that will interrupt the power supply to the fence. The manual disconnect means shall be located at an approved and accessible location. It shall be secured by an approved locking device that is keyed to the Memphis Fire Department's specifications.
2. The manual disconnect means shall clearly indicate the fence power status.
3. Signage shall be provided at the manual disconnect that indicates "Fence Power Emergency Bypass" in red letters at least 1" high on a white background. Based on the installation, additional signs may be required at additional points to clearly indicate the location of the manual disconnect means.

**Chapter 6  
Building Services and Systems**

**No Amendments**

**Chapter 7  
Fire-Resistance-Rated Construction**

**No Amendments**

**Chapter 8  
Interior Finish, Decorative Material and Furnishings**

**806.1.1 Restricted occupancies** is amended to add the letter "B," following the letter "A". This section is further amended to delete the first exception and substitute in lieu thereof the following:

1. Where protected in a manner approved by the fire official.

**Section 806 Decorative vegetation in new and existing buildings** is amended to add the following new sub-section:

**806.6 Restricted occupancies.** Combustible decorative materials such as, but not limited to, cotton batting, vegetation, moss, straw, hay, vines, split bamboo, leaves and similar material shall not be used in Group A, B, E, I-1, I-2, I-3, I-4, M, R-1, R-2, R-4 occupancies.

## Chapter 9 Fire Protection Systems

**901.2 Construction documents** is amended to add the following new sub-sections:

**901.2.2 Fire sprinkler plans submittal.** Plans for the installation of sprinkler systems shall be submitted to the Fire Prevention Bureau and approved prior to installation of any new system and on all existing systems where 10 or more sprinkler heads are added or when calculations for the system must be revised.

**901.2.3 Fire alarm plans submittal.** Plans for the installation of fire alarm systems shall be submitted to the Fire Prevention Bureau and approved prior to installation of any new system and for any alterations to existing systems where devices are added or removed.

**901.2.4 All other fire protection system plans.** Any plans for the installation of fire protection systems shall be submitted to the Fire Prevention Bureau and approved prior to installation.

**903.3.5 Water supplies** is amended to add the following words at the end of the second sentence following the word “Code”:

“and Memphis Light, Gas, and Water requirements.”

**903.4 Sprinkler system supervision and alarms** is amended to add the following sentence at the end of the section following the word “unit”:

“These valves shall also be locked in the normal position.”

**Section 903.4** is further amended to add exceptions 8 and 9 at the end of the section:

8. Existing systems that have not been extended, modified or previously electrically supervised may be locked in the normal position.
9. In private fire service mains, underground control or section valves with roadway boxes accessible with a special wrench shall not be required to be electrically supervised or locked in the normal position.

**903.4.1 Monitoring** is amended to add the following new sub-section:

**903.4.1.1** Where monitoring of a sprinkler system is required in this jurisdiction, it shall be by an approved central station and shall be in accordance with the requirements of Fire Alarm Systems for Central Station Service as described in NFPA 72. The method of retransmission of signals shall be approved by the Fire Communications Bureau.

**903.4.3** is amended to delete the words “high-rise buildings” at the end of the section and replace therewith the following words: “all buildings two (2) or more stories in height.” This section is further amended to add the following exceptions at the end of the section:

- Exceptions:
1. Buildings equipped with an approved 13R sprinkler system that are not equipped with a standpipe system.
  2. Buildings equipped with an approved 13D sprinkler system.

**904.12 Commercial cooking systems** is amended to insert the following sentences before the first sentence of this section following the word “systems”:

“Commercial cooking systems shall include all cooking operations except those conducted in one and two family dwelling units. One and two family dwellings being used as group homes shall be required to install a suppression system unless otherwise approved by the fire official. Domestic cooking equipment and related exhaust systems/hoods regulated by this section may be protected by an automatic fire extinguishing system of a type recognized for their protection.”

**904.12.6.3 Fusible link and sprinkler head replacement** is amended to insert the following words in the first sentence following the words “Fusible links”:

“shall be replaced semi-annually and”

**905.3 Required installations** is amended to delete the number “905.3.8” in the first sentence and substitute in lieu thereof the number “905.3.9”.

**Section 905.3** is further amended to add the following new sub-section:

**905.3.9 Other buildings.** Buildings 50 feet or more in height, except those with a roof slope greater than 4:12 that do not require a wet standpipe shall be provided with a dry standpipe. The standpipe shall provide coverage for all areas of the building including the roof. The standpipe need not have an automatic water supply and shall be located that hose lays do not exceed 250 feet. Access to the roof and the standpipe shall be provided. Each standpipe shall be capable of providing 500 gallons per minute at the top most outlet when supplied by fire department equipment. Signage shall be provided on each standpipe indicating that it is a dry standpipe with no automatic water supply.

**905.3.2 Group A** is amended to delete the second exception in its entirety without substitution.

**907.2.5 Group H** is amended to delete the letter and number “H-5” in the first sentence and replace with the letter “H”.

**907.5.2.3 Visible alarms** is amended to delete the first exception in its entirety without substitution.

**907.6.6 Monitoring** is amended to add the following new sub-sections:

**907.6.6.3 Monitoring requirements.** Where monitoring of a fire alarm system is required in this jurisdiction, it shall be by an approved central station and shall be in accordance with the requirements of Fire Alarm Systems for Central Station Service as described in NFPA 72. The method of retransmission of signals shall be approved by the Fire Communications Bureau.

**907.6.6.4 Runner service.** A runner or technician, as defined by NFPA 72, must be dispatched to the protected premises to arrive within 1 hour after receipt of a signal, when required to respond.

**910.4 Mechanical smoke exhaust** is amended to add the following new sub-section:

**910.4.8 Mechanical smoke exhaust system plans submittal.** Plans for the installation of all mechanical smoke exhaust systems shall be submitted to the Fire Prevention Bureau and approved prior to installation of any new system and for any alterations to existing systems where components are added or removed.

**910.4.3 System design criteria** is amended to add the following sentence at the end of the section following the word, “minute”:

“Exhaust fans shall be uniformly spaced within the building and the maximum distance between fans shall not be greater than 100 feet (30,480 mm), unless approved by the Fire Official.”

**910.4.3.1 Makeup air** is amended to add the following sentence at the end of the section following the word, “exhaust”:

“Overhead doors shall not be used as required makeup air inlets.”

**910.4.5 Manual control location** is amended to add the following sentences at the end of the section following the word, “both”:

“The mechanical smoke removal system fire department control panel shall be in an approved location. The control panel may be located at an exterior location approved by the Fire Official. The location and the control panel shall be clearly identified. Automatic sprinkler protection shall be provided in the control panel room.”

**910.4.7 Controls** is amended to add the following sentence at the end of the section following the word, “system”:

“Controls shall be designed for selective control of no more than 3 smoke removal units. Fans grouped on a single switch shall be in the same fire area.”

**Section 912.2 Location** is amended to add the following new sub-section:

**912.2.3 Proximity to fire hydrants.** Fire department connections shall be located not more than 100 feet from an approved fire hydrant.

**913.4 Valve supervision** is amended to delete the entire section and substitute in lieu thereof the following:

**913.4 Valve supervision.** Where provided, all valves which effect the proper operation of the fire pump, shall be supervised by approved central-station signaling service and be locked in the normal position.

**Exception:** In private fire service mains, underground control or section valves with roadway boxes accessible with a special wrench shall not be required to be electrically supervised or locked in the normal position.

**914.3.2 Secondary water supplies** is amended to add the following words to the end of the last sentence following “NFPA 13”:

“; however, this supply need not exceed 10,000 gallons in capacity unless required by the fire code official.”

## **Chapter 10 Means of Egress**

**1001.1 General** is amended to add the following new sub-section:

**1001.3 Other standards.** When this code does not contain requirements on a particular aspect of a means of egress system, NFPA 101 may be used as an accepted engineering practice standard.

**1008.2 Illumination required** is amended to add the following at the end of exception # 2 following the letter “A”:

“and Group S (Sprinklered)”

**1031 Maintenance of the means of egress** is amended to add the following new sub-sections:

**1031.10 Overcrowding.** The number of occupants of any building or portion thereof shall not be permitted to exceed the allowed or posted capacity, determined in accordance with the building code.

## **Chapter 11 Construction Requirements for Existing Building**

**No amendments**

**Chapters 12 through 19  
Reserved**

**No amendments**

**Chapter 20  
Aviation Facilities**

**No amendments**

**Chapter 21  
Dry Cleaning**

**No amendments**

**Chapter 22  
Combustible Dust-Producing Operations**

**No Amendments**

**Chapter 23  
Motor Fuel-Dispensing Facilities and Repair Garages**

**No Amendments**

**Chapter 24  
Flammable Finishes**

**No amendments**

**Chapter 25  
Fruit and Crop Ripening**

**No Amendments**

**Chapter 26  
Fumigation and Thermal Insecticidal Fogging**

**No Amendments**

**Chapter 27  
Semiconductor Fabrication Facilities**

**No Amendments**

**Chapter 28**  
**Lumber Yards and Woodworking Facilities**

**Chapter 28** shall be amended by adding the following new section:

**Section 2810 Outdoor Storage of Pallets at Pallet Manufacturing and Recycling Facilities**

**2810.1 General.** The outside storage of wood pallets and wood composite pallets on the same site as a pallet manufacturing or recycling facility shall comply with Sections 2810.2 through 2810.11.

**2810.2 Site plan.** Each site shall maintain a current site plan that includes a general description of the property, the boundaries of the lot, the size and location of buildings, and all of the following:

1. Utilities.
2. Type of construction and presence of sprinkler protection for buildings on site.
3. Water supply sources for fire-fighting purposes.
4. Location of hazardous materials storage areas.
5. Location of pallet storage.
6. Equipment protected with a dust collecting system.
7. *Fire apparatus access roads.*
8. Designated smoking areas.
9. Location of fire alarm control panels.

**2810.3 Fire prevention plan.** The *owner or owner's* authorized representative shall prepare an *approved* fire prevention plan that includes all of the following:

1. Frequency of walk-through inspections to verify compliance with the plan.
2. Hot work permit program in accordance with Chapter 35.
3. Preventive maintenance program for equipment associated with pallet activities.
4. Inspection, testing and maintenance of *fire protection systems* in accordance with Chapter 9.

**2810.4 Fire safety and emergency evacuation plan.** The *owner or owner's* authorized representative shall prepare and train employees in an *approved* fire safety and emergency evacuation plan in accordance with Chapter 4.

**2810.5 Security management plan.** The *owner or owner's* authorized representative shall prepare a security management plan based on a security risk assessment and shall make the plan and assessment available to the *fire code official* upon request.

**2810.6 Clearance to property line.** Stacks of pallets shall not be stored within 0.75 times the stack height or 8 feet (2438 mm) of the property line, whichever is greater, or shall comply with Section 2810.11.

**2810.7 Clearance to important buildings.** Stacks of pallets shall not be stored within 0.75 times the stack height of any important building on site, or shall comply with Section 2810.11.

**2810.8 Height.** Pallet stacks shall not exceed 20 feet (6096 mm) in height.

**2810.9 Fire flow.** Fire-flow requirements shall be determined by the *fire code official*.

**2810.10 Portable fire extinguishers.** Portable fire extinguishers shall be provided within 75 feet (22,860 mm) of any pallet stack.

**2810.11 Alternative approach.** Where *approved* by the *fire code official*, pallet stacks located closer to a property line or structure than as required by Sections 2810.6 and 2810.7 shall be provided with additional fire protection including, but not limited to, the following:

1. The storage yard areas and materials-handling equipment selection, design, and arrangement are based on an *approved* risk assessment.
2. Automatic fire detection that transmits an alarm to a supervising station in accordance with NFPA 72.
3. *Fire apparatus access roads* around all storage areas.

## **Chapter 29 Manufacture of Organic Coatings**

**2909.4.2 Spills** is amended by deleting the words “or by burning in the open at an approved detached location” without substitution.

## **Chapter 30 Industrial Ovens**

**No Amendments**

## **Chapter 31 Tents and Other Membrane Structures**

**3103.2 Approval required** is amended to delete the second exception and substitute in lieu thereof the following:

2. Funeral tents and curtains or extensions attached thereto, when used for funeral services.

**3104.2 Flame propagation performance treatment** is amended to add the following sentence at the end of the section following the word, “permit”:

“The flame propagation performance treatment requirements shall also apply to tents or air-supported structures that do not require permits and are used for public gatherings.”

**3104.15.5 Cooking tents** is amended to add the words “unless approved by the fire official” at the end of the section following the numbers and letters “20 feet (6096 mm)”.

**3104.15.6 Outdoor cooking** is amended to add the words “unless approved by the fire official” at the end of the section following the word “structure”.

## **Chapter 32 High-Piled Combustible Storage**

**3206.6.1.2 Door size and type** is amended to add the following exception:

**Exception:** Roll up doors shall be allowed to be considered for use as fire fighter access doors provided provisions are made for the doors to unlock upon activation of the water flow alarm.

## **Chapter 33 Fire Safety During Construction and Demolition**

**3313.3 Detailed requirements** is amended to add the following sentence at the end of the exception following the word “materials”:

“The type of standpipe permitted shall be approved by the fire official.”

## **Chapter 34 Tire Rebuilding and Tire Storage**

**No Amendments**

## **Chapter 35 Welding and Other Hot Work**

**No Amendments**

## **Chapter 36 Marinas**

**No Amendments**

**Chapter 37  
Combustible Fibers**

**No Amendments**

**Chapters 38 through 49  
Reserved**

**No Amendments**

**Chapter 50  
Hazardous Materials – General Provisions**

**No Amendments**

**Chapter 51  
Aerosols**

**No Amendments**

**Chapter 52  
Reserved**

**No Amendments**

**Chapter 53  
Compressed Gases**

**No Amendments**

**Chapter 54  
Corrosive Materials**

**No Amendments**

**Chapter 55  
Cryogenic Fluids**

**No Amendments**

**Chapter 56  
Explosives and Fireworks**

**No Amendments**

**Chapter 57**  
**Flammable and Combustible Liquids**

**5703 General Requirements** is amended to add the following new sub-section:

**5703.1.4 Unauthorized storage.** It shall be illegal to store or keep gasoline powered equipment such as motor vehicles, motorcycles, scooters, lawn equipment, generators, power washers, or equipment associated with the construction trades in any structure, facility, building, suite, or room unless the structure, facility, building, suite, or room is approved for such use. This restriction does not apply to items displayed for sale with no gasoline in the attached tank.

**5703.5 Labeling and signage** is amended to add the words “or combustible” following the word “flammable” in the first sentence.

**5704.3.3 Indoor storage** is amended to add the following exception:

3. The storage of flammable and combustible liquids in plastic containers shall comply with this chapter as well as applicable sections of NFPA 30. Secondary containment for the storage of flammable and combustible liquids in plastic containers shall comply with Factory Mutual 7-29.

**5704.2.9.6.1 Locations where above-ground tanks are prohibited** is amended to delete the words “limits established by law as the limits of districts in which such storage is prohibited (see Section 3 of the Sample Legislation for Adoption of the *International Fire Code* on page xxi)” in the first sentence and substitute in lieu thereof the words “fire district”.

**5706.2.4.4 Locations where above-ground tanks are prohibited** is amended to delete the words “limits established by law as the limits of districts in which such storage is prohibited (see Section 3 of the Sample Legislation for Adoption of the *International Fire Code* on page xxi)” in the first sentence and substitute in lieu thereof the words “fire district”.

**Chapter 58**  
**Flammable Gases and Flammable Cryogenic Fluids**

**No Amendments**

**Chapter 59**  
**Flammable Solids**

**No Amendments**

**Chapter 60**  
**Highly Toxic and Toxic Materials**

**No Amendments**

**Chapter 61**  
**Liquefied Petroleum Gases**

**6103.2.1 Portable containers** is amended to add the following new sub-section:

**6103.2.1.8 Flame effects before a proximate audience.** The use of LP gas as part of a flame effect before a proximate audience shall comply with this chapter and NFPA 160 and shall be approved by the fire official.

**6107 Safety Precautions and Devices** is amended to add the following new sub-section:

**6107.5 Storage and Transport.** Portable LP-gas containers shall be maintained in the upright position relative to the relief valve during storage or transport.

**Chapter 62**  
**Organic Peroxides**

No Amendments

**Chapter 63**  
**Oxidizers, Oxidizing Gases and Oxidizing Cryogenic Fluids**

No Amendments

**Chapter 64**  
**Pyrophoric Materials**

No Amendments

**Chapter 65**  
**Proxylin (Cellulose Nitrate) Plastics**

No Amendments

**Chapter 66**  
**Unstable (Reactive) Materials**

No Amendments

**Chapter 67**  
**Water-Reactive Solids and Liquids**

No Amendments

**Chapters 68 through 79**  
**Reserved**

No Amendments

## Chapter 80 Referenced Standards

**Chapter 80 Referenced Standards** is amended by deleting and adding the following standards and publications:

### **DELETE** **NFPA Standards**

<b>02—11 Hydrogen Technologies Code</b> . . . . .	2309.3.1.1, 2309.3.1.2, 5301.1, 5307.3, 5801.1
<b>10—13 Portable Fire Extinguishers</b> . . . . .	Table 901.6.1, 906.2, 906.3, Table 906.3(1), Table 906.3(2), 906.3.2, 906.3.4, 3006.3, I101.1
<b>11—10 Low-, Medium- and High-expansion Foam</b> . . . . .	904.7, 5704.2.9.2.2
<b>12—11 Carbon Dioxide Extinguishing Systems</b> . . . . .	Table 901.6.1, 904.8, 904.12
<b>12A—09 Halon 1301 Fire Extinguishing Systems</b> . . . . .	Table 901.6.1, 904.9
<b>13—13 Installation of Sprinkler Systems</b> . . . . .	Table 903.3.1.1, 903.3.2, 903.3.8.2, 903.3.8.5, 904.12, 905.3.4, 907.6.4, 914.3.2, 1019.3, 1103.4.8, 3201.1, 3204.2, Table 3206.2, 3206.4.1, 3206.9, 3207.2, 3207.2.1, 3208.2.2, 3208.2.2.1, 3208.4, 3210.1, 3401.1, 5104.1, 5104.1.1, 5106.5.7, 5704.3.3.9, Table 5704.3.6.3(7), 5704.3.7.5.1, 5704.3.8.4.
<b>13D—13 Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes.</b> . . . . .	903.3.1.3
<b>13R—13 Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height.</b> . . . . .	903.3.1.2, 903.3.5.2, 903.4
<b>14—13 Installation of Standpipe and Hose Systems</b> . . . . .	905.2, 905.3.4, 905.4.2, 905.6.2, 905.8
<b>15—12 Water Spray Fixed Systems for Fire Protection</b> . . . . .	5704.2.9.2.3
<b>17—13 Dry Chemical Extinguishing Systems</b> . . . . .	Table 901.6.1, 904.6, 904.12
<b>17A—13 Wet Chemical Extinguishing Systems</b> . . . . .	Table 901.6.1, 904.5, 904.12
<b>20—13 Installation of Stationary Pumps for Fire Protection</b> . . . . .	913.1, 913.2, 913.5.1
<b>22—13 Water Tanks for Private Fire Protection</b> . . . . .	507.2.2
<b>24—13 Installation of Private Fire Service Mains and their Appurtenances.</b> . . . . .	507.2.1, 2809.5
<b>25—14 Inspection, Testing and Maintenance of Water-based Fire Protection Systems.</b> . . . . .	507.5.3, Table 901.6.1, 904.7.1, 912.7, 913.5
<b>30—12 Flammable and Combustible Liquids Code.</b> . . . . .	610.1, 5701.2, 5703.6.2, 5703.6.2.1, 5704.2.7, 5704.2.7.1, 5704.2.7.2, 5704.2.7.3.2, 5704.2.7.4, 5704.2.7.6, 5704.2.7.7, 5704.2.7.8, 5704.2.7.9, 5704.2.9.3, 5704.2.9.4, 5704.2.9.6.1.1, 5704.2.9.6.1.2, 5704.2.9.6.1.3, 5704.2.9.6.1.4, 5704.2.9.6.1.5, 5704.2.9.6.2, 5704.2.9.7.3, 5704.2.10.2, 5704.2.11.3, 5704.2.11.4.2, 5704.2.12.1, 5704.3.1, 5704.3.6, Table 5704.3.6.3(1), Table 5704.3.6.3(2), Table 5704.3.6.3(3), 5704.3.7.2.3, 5704.3.8.4, 5706.8.3
<b>30A—15 Motor Fuel-dispensing Facilities and Repair Garages.</b> . . . . .	2301.4, 2301.5, 2301.6, 2306.6.3, 2310.1
<b>31—11 Installation of Oil-burning Equipment.</b> . . . . .	603.1.7, 603.3.1, 603.3.3
<b>32—11 Dry Cleaning Plants.</b> . . . . .	2107.1, 2107.3
<b>33—15 Spray Application Using Flammable or Combustible Materials.</b> . . . . .	2404.3.2
<b>34—15 Dipping, Coating and Printing Processes Using Flammable or Combustible Liquids.</b> . . . . .	2405.3, 2405.4.1.1
<b>35—11 Manufacture of Organic Coatings.</b> . . . . .	2901.3, 2905.4
<b>40—11 Storage and handling of Cellulose Nitrate Film.</b> . . . . .	306.2
<b>51—13 Design and Installation of Oxygen-fuel Gas Systems for Welding, Cutting and Allied Processes.</b> . . . . .	3501.5, 3507.1, 3509.1
<b>52—13 Vehicular Gaseous Fuel System Code</b> . . . . .	5301.1

<b>55—13 Compressed Gases and Cryogenic Fluids Code</b> .....	2309.2.1, 5301.1, 5307.3, 5501.1, 5801.1, 6301.1
<b>56—12 Fire and Explosion Prevention during Cleaning and Purging of Flammable Gas Piping Systems</b> .....	3306.2.1
<b>58—14 Liquefied Petroleum Gas Code</b> ....	603.4.2.1.1, 6101.1, 6103.1, 6103.2.1, 6103.2.1.2, 6103.2.1.7, 6103.2.2, 6104.1, 6104.3.2, 6104.4, 6105.2, 6106.2, 6106.3, 6107.2, 6107.4, 6108.1, 6108.2, 6109.11.2, 6111.3
<b>59A—13 Production, Storage and Handling of Liquefied Natural Gas (LNG)</b> .....	5301.1, 5501.1
<b>61—13 Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities</b> .....	Table 2204.1
<b>72—13 National Fire Alarm and Signaling Code</b> .....	508.1.6, 604.2.4, Table 901.6.1, 903.4.1, 904.3.5, 907.2, 907.2.6, 907.2.9.3, 907.2.11, 907.2.13.2, 907.3, 907.3.3, 907.3.4, 907.5.2.1.2, 907.5.2.2, 907.5.2.2.5, 907.6, 907.6.1, 907.6.2, 907.6.6, 907.7, 907.7.1, 907.7.2, 907.8, 907.8.2, 907.8.5, 1103.3.2
<b>80—13 Fire Doors and Other Opening Protectives</b> .....	703.1.3, 1010.1.4.3
<b>92—15 Smoke Control Systems</b> .....	909.7, 909.8
<b>99—15 Health Care Facilities Code</b> .....	611.1, 1105.5.2, 1105.10.1, 1105.10.2, 5306.4, 5306.5
<b>101—15 Life Safety Code</b> .....	1029.6.2
<b>105—13 Smoke Door Assemblies and Other Opening Protectives</b> .....	703.1.2
<b>110—13 Emergency and Standby Power Systems</b> .....	604.1, 604.4, 604.5, 913.5.2, 913.5.3
<b>111—13 Stored Electrical Energy Emergency and Standby Power Systems</b> .....	604.1, 604.4, 604.5
<b>160—11 Use of Flame Effects Before an Audience</b> .....	308.3.2
<b>170—15 Standard for Fire Safety and Emergency Symbols</b> .....	1025.2.6.1
<b>204—15 Smoke and Heat Venting</b> .....	Table 901.6.1, 910.5.1
<b>211—13 Chimneys, Fireplaces, Vents and Solid Fuel-burning Appliances</b> .....	603.2
<b>261—13 Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes</b> .....	805.2.1.1, 805.3.1.1, 805.4.1.1
<b>265—11 Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Wall Coverings in Full Height Panels and Walls</b> .....	803.1.2.1, 803.5.1.1, 803.5.1.2, 803.5.2, 803.6
<b>303—11 Fire Protection Standard for Marinas and Boatyards</b> .....	905.3.7, 3603.5, 3603.6, 3604.2
<b>318—15 Protection of Semiconductor Fabrication Facilities</b> .....	2703.15
<b>326—10 Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair</b> .....	3510.1
<b>385—12 Tank Vehicles for Flammable and Combustible Liquids</b> .....	5706.5.4.5, 5706.6, 5706.6.1
<b>400—13 Hazardous Materials Code</b> .....	5601.1.5, 6304.1.2, Table 6304.1.5 (1), Table 6304.1.5(2)
<b>407—12 Aircraft Fuel Servicing</b> .....	2006.2, 2006.3
<b>409—11 Aircraft Hangars</b> .....	914.8.3, Table 914.8.3, 914.8.3.1, 914.8.6
<b>410—10 Aircraft Maintenance</b> .....	2004.7
<b>495—13 Explosive Materials Code</b> .....	202, 911.1, 911.4, 5601.1.1, 5601.1.5, 5604.2, 5604.6.2, 5604.6.3, 5604.7.1, 5605.1, 5606.1, 5606.5.2.1, 5606.5.2.3, 5607.1, 5607.9, 5607.11, 5607.15
<b>498—13 Safe Havens and Interchange Lots for Vehicles Transporting Explosives</b> .....	5601.1.2
<b>505—13 Fire Safety Standard for Powered Industrial Trucks, Including Type Designations, Areas of Use, Maintenance and Operation</b> .....	5003.7.3
<b>654—13 Prevention of Fire and Dust Explosion from the Manufacturing, Processing and Handling of Combustible Particulate Solids</b> .....	Table 2204.1
<b>655—12 Prevention of Sulfur Fires and Explosions</b> .....	Table 2204.1
<b>664—12 Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities</b> .....	Table 2204.1, 2805.3
<b>701—10 Methods of Fire Tests for Flame-propagation of Textiles and Films</b> .....	806.2, 807.4, 807.5.1.2, 2603.5, 3104.2
<b>703—15 Fire Retardant-Wood and Fire Retardant Coatings for Building Materials</b> .....	803.4

<b>704—12 Standard System for Identification of the Hazards of Materials for Emergency Response</b> .....	606.7, 202, 3104.2, 5003.2.2.1, 5003.2.2.2, 5003.5, 5003.10.2, 5005.1.10, 5005.2.11, 5005.4.4, 5503.4.1, 5704.2.3.2
<b>750—14 Water Mist Fire Protection Systems</b> .....	202, Table 901.6.1, 904.11.1.1
<b>914—10 Code for Protection of Historic Structures</b> .....	1103.1.1
<b>1122—13 Code for Model Rocketry</b> .....	5601.1.4
<b>1123—14 Fireworks Display</b> .....	202, 5604.2, 5608.1, 5608.2.2, 5608.5, 5608.6
<b>1124—06 Code for the Manufacture, Transportation, Storage and Retail Sales of Fireworks and Pyrotechnic Articles</b> .....	202, 5601.1.3, 5604.2, 5605.1, 5605.3, 5605.4, 5605.5, 5609.1
<b>1125—12 Code for the Manufacture of Model Rocket and High Power Rocket Motors</b> .....	5601.1.4
<b>1126—11 Use of Pyrotechnics Before a Proximate Audience</b> .....	5604.2, 5605.1, 5608.1, 5608.2.2, 5608.4, 5608.5
<b>1127—13 Code for High Power Rocketry</b> .....	5601.1.4
<b>2001—15 Clean Agent Fire Extinguishing Systems</b> .....	Table 901.6.1, 904.10

**ADD**

**NFPA Standards**

<b>02—16 Hydrogen Technologies Code</b> .....	2309.3.1.1, 2309.3.1.2, 5301.1, 5307.3, 5801.1
<b>10—18 Portable Fire Extinguishers</b> .....	Table 901.6.1, 906.2, 906.3, Table 906.3(1), Table 906.3(2), 906.3.2, 906.3.4, 3006.3, I101.1
<b>11—16 Low-, Medium- and High-expansion Foam</b> .....	904.7, 5704.2.9.2.2
<b>12—18 Carbon Dioxide Extinguishing Systems</b> .....	Table 901.6.1, 904.8, 904.12
<b>12A—18 Halon 1301 Fire Extinguishing Systems</b> .....	Table 901.6.1, 904.9
<b>13—16 Installation of Sprinkler Systems</b> .....	Table 903.3.1.1, 903.3.2, 903.3.8.2, 903.3.8.5, 904.12, 905.3.4, 907.6.4, 914.3.2, 1019.3, 1103.4.8, 3201.1, 3204.2, Table 3206.2, 3206.4.1, 3206.9, 3207.2, 3207.2.1, 3208.2.2, 3208.2.2.1, 3208.4, 3210.1, 3401.1, 5104.1, 5104.1.1, 5106.5.7, 5704.3.3.9, Table 5704.3.6.3(7), 5704.3.7.5.1, 5704.3.8.4.
<b>13D—16 Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes</b> .....	903.3.1.3
<b>13R—16 Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height</b> .....	903.3.1.2, 903.3.5.2, 903.4
<b>14—16 Installation of Standpipe and Hose Systems</b> .....	905.2, 905.3.4, 905.4.2, 905.6.2, 905.8
<b>15—17 Water Spray Fixed Systems for Fire Protection</b> .....	5704.2.9.2.3
<b>17—17 Dry Chemical Extinguishing Systems</b> .....	Table 901.6.1, 904.6, 904.12
<b>17A—17 Wet Chemical Extinguishing Systems</b> .....	Table 901.6.1, 904.5, 904.12
<b>20—16 Installation of Stationary Pumps for Fire Protection</b> .....	913.1, 913.2, 913.5.1
<b>22—18 Water Tanks for Private Fire Protection</b> .....	507.2.2
<b>24—16 Installation of Private Fire Service Mains and their Appurtenances</b> .....	507.2.1, 2809.5
<b>25—17 Inspection, Testing and Maintenance of Water-based Fire Protection Systems</b> .....	507.5.3, Table 901.6.1, 904.7.1, 912.7, 913.5
<b>30—18 Flammable and Combustible Liquids Code</b> .....	610.1, 5701.2, 5703.6.2, 5703.6.2.1, 5704.2.7, 5704.2.7.1, 5704.2.7.2, 5704.2.7.3.2, 5704.2.7.4, 5704.2.7.6, 5704.2.7.7, 5704.2.7.8, 5704.2.7.9, 5704.2.9.3, 5704.2.9.4, 5704.2.9.6.1.1, 5704.2.9.6.1.2, 5704.2.9.6.1.3, 5704.2.9.6.1.4, 5704.2.9.6.1.5, 5704.2.9.6.2, 5704.2.9.7.3, 5704.2.10.2, 5704.2.11.3, 5704.2.11.4.2, 5704.2.12.1, 5704.3.1, 5704.3.6, Table 5704.3.6.3(1), Table 5704.3.6.3(2), Table 5704.3.6.3(3), 5704.3.7.2.3, 5704.3.8.4, 5706.8.3
<b>30A—18 Motor Fuel-dispensing Facilities and Repair Garages</b> .....	2301.4, 2301.5, 2301.6, 2306.6.3, 2310.1
<b>31—16 Installation of Oil-burning Equipment</b> .....	603.1.7, 603.3.1, 603.3.3
<b>32—16 Dry Cleaning Plants</b> .....	2107.1, 2107.3

<b>33—18 Spray Application Using Flammable or Combustible Materials</b> .....	2404.3.2
<b>34—18 Dipping, Coating and Printing Processes Using Flammable or Combustible Liquids</b> .....	2405.3, 2405.4.1.1
<b>35—16 Manufacture of Organic Coatings</b> .....	2901.3, 2905.4
<b>40—16 Storage and handling of Cellulose Nitrate Film</b> .....	306.2
<b>51—18 Design and Installation of Oxygen-fuel Gas Systems for Welding, Cutting and Allied Processes</b> .....	3501.5, 3507.1, 3509.1
<b>52—16 Vehicular Gaseous Fuel System Code</b> .....	5301.1
<b>55—16 Compressed Gases and Cryogenic Fluids Code</b> .....	2309.2.1, 5301.1, 5307.3, 5501.1, 5801.1, 6301.1
<b>56—17 Fire and Explosion Prevention during Cleaning and Purging of Flammable Gas Piping Systems</b> .....	3306.2.1
<b>58—17 Liquefied Petroleum Gas Code</b> .....	603.4.2.1.1, 6101.1, 6103.1, 6103.2.1, 6103.2.1.2, 6103.2.1.7, 6103.2.2, 6104.1, 6104.3.2, 6104.4, 6105.2, 6106.2, 6106.3, 6107.2, 6107.4, 6108.1, 6108.2, 6109.11.2, 6111.3
<b>59A—16 Production, Storage and Handling of Liquefied Natural Gas (LNG)</b> .....	5301.1, 5501.1
<b>61—17 Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities</b> .....	Table 2204.1
<b>72—16 National Fire Alarm and Signaling Code</b> .....	508.1.6, 604.2.4, Table 901.6.1, 903.4.1, 904.3.5, 907.2, 907.2.6, 907.2.9.3, 907.2.11, 907.2.13.2, 907.3, 907.3.3, 907.3.4, 907.5.2.1.2, 907.5.2.2, 907.5.2.2.5, 907.6, 907.6.1, 907.6.2, 907.6.6, 907.7, 907.7.1, 907.7.2, 907.8, 907.8.2, 907.8.5, 1103.3.2
<b>80—16 Fire Doors and Other Opening Protectives</b> .....	703.1.3, 1010.1.4.3
<b>92—18 Smoke Control Systems</b> .....	909.7, 909.8
<b>96—17 Ventilation Control and Fire Protection of Commercial Cooking Operations</b> .....	Annex B
<b>99—18 Health Care Facilities Code</b> .....	611.1, 1105.5.2, 1105.10.1, 1105.10.2, 5306.4, 5306.5
<b>101—18 Life Safety Code</b> .....	1029.6.2
<b>105—16 Smoke Door Assemblies and Other Opening Protectives</b> .....	703.1.2
<b>110—16 Emergency and Standby Power Systems</b> .....	604.1, 604.4, 604.5, 913.5.2, 913.5.3
<b>111—16 Stored Electrical Energy Emergency and Standby Power Systems</b> .....	604.1, 604.4, 604.5
<b>160—16 Use of Flame Effects Before an Audience</b> .....	308.3.2
<b>170—18 Standard for Fire Safety and Emergency Symbols</b> .....	1025.2.6.1
<b>204—18 Smoke and Heat Venting</b> .....	Table 901.6.1, 910.5.1
<b>211—16 Chimneys, Fireplaces, Vents and Solid Fuel-burning Appliances</b> .....	603.2
<b>261—18 Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes</b> .....	805.2.1.1, 805.3.1.1, 805.4.1.1
<b>265—15 Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Wall Coverings in Full Height Panels and Walls</b> .....	803.1.2.1, 803.5.1.1, 803.5.1.2, 803.5.2, 803.6
<b>303—16 Fire Protection Standard for Marinas and Boatyards</b> .....	905.3.7, 3603.5, 3603.6, 3604.2
<b>318—18 Protection of Semiconductor Fabrication Facilities</b> .....	2703.15
<b>326—15 Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair</b> .....	3510.1
<b>385—17 Tank Vehicles for Flammable and Combustible Liquids</b> .....	5706.5.4.5, 5706.6, 5706.6.1
<b>400—16 Hazardous Materials Code</b> .....	5601.1.5, 6304.1.2, Table 6304.1.5 (1), Table 6304.1.5(2)
<b>407—17 Aircraft Fuel Servicing</b> .....	2006.2, 2006.3
<b>409—16 Aircraft Hangars</b> .....	914.8.3, Table 914.8.3, 914.8.3.1, 914.8.6
<b>410—15 Aircraft Maintenance</b> .....	2004.7
<b>495—18 Explosive Materials Code</b> .....	202, 911.1, 911.4, 5601.1.1, 5601.1.5, 5604.2, 5604.6.2, 5604.6.3, 5604.7.1, 5605.1, 5606.1, 5606.5.2.1, 5606.5.2.3, 5607.1, 5607.9, 5607.11, 5607.15
<b>498—18 Safe Havens and Interchange Lots for Vehicles Transporting Explosives</b> .....	5601.1.2
<b>505—18 Fire Safety Standard for Powered Industrial Trucks, Including Type Designations, Areas of Use, Maintenance and Operation</b> .....	5003.7.3

<b>654—17 Prevention of Fire and Dust Explosion from the Manufacturing, Processing and Handling of Combustible Particulate Solids</b> .....	Table 2204.1
<b>655—17 Prevention of Sulfur Fires and Explosions</b> .....	Table 2204.1
<b>664—17 Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities</b> .....	Table 2204.1, 2805.3
<b>701—15 Methods of Fire Tests for Flame-propagation of Textiles and Films</b> .....	806.2, 807.4, 807.5.1.2, 2603.5, 3104.2
<b>703—18 Fire Retardant-Wood and Fire Retardant Coatings for Building Materials</b> .....	803.4
<b>704—17 Standard System for Identification of the Hazards of Materials for Emergency Response</b> .....	606.7, 202, 3104.2, 5003.2.2.1, 5003.2.2.2, 5003.5, 5003.10.2, 5005.1.10, 5005.2.11, 5005.4.4, 5503.4.1, 5704.2.3.2
<b>750—15 Water Mist Fire Protection Systems</b> .....	202, Table 901.6.1, 904.11.1.1
<b>914—15 Code for Protection of Historic Structures</b> .....	1103.1.1
<b>1122—18 Code for Model Rocketry</b> .....	5601.1.4
<b>1123—18 Fireworks Display</b> .....	202, 5604.2, 5608.1, 5608.2.2, 5608.5, 5608.6
<b>1124—17 Code for the Manufacture, Transportation, Storage and Retail Sales of Fireworks and Pyrotechnic Articles</b> .....	202, 5601.1.3, 5604.2, 5605.1, 5605.3, 5605.4, 5605.5, 5609.1
<b>1125—17 Code for the Manufacture of Model Rocket and High Power Rocket Motors</b> .....	5601.1.4
<b>1126—16 Use of Pyrotechnics Before a Proximate Audience</b> .....	5604.2, 5605.1, 5608.1, 5608.2.2, 5608.4, 5608.5
<b>1127—18 Code for High Power Rocketry</b> .....	5601.1.4
<b>2001—18 Clean Agent Fire Extinguishing Systems</b> .....	Table 901.6.1, 904.10

**FM Global Data Sheets**

**7-29 Ignitable Liquid Storage in Portable Containers**, (current edition) – Sections that relate to requirements for flammable and combustible liquids in plastic containers only.

**American Petroleum Institute**

**API Recommended Practice 2201, Safe Hot Tapping Practices in the Petroleum and Petrochemical Industries** (current edition)

**Appendix B  
Fire-Flow Requirements for Buildings**

**B103.2 Increases** is amended to insert the following words at the end of the first sentence following the word “conflagrations”:

“, present a special hazard use, or include the protection of a special hazard commodity.”

**Section B105 Fire-flow requirements for buildings** is amended to delete the entire section (including Table B105.1(1) and Table B105.2) and substitute in lieu thereof the following new section:

## **Section B105 Fire-flow requirements for buildings**

**B105.1 One- and two-family dwellings, Group R-3 and R-4 buildings and townhouses.** The minimum fire-flow and flow duration requirements for one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Table B105.1(2).

**B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses.** The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Table B105.1(2).

- Exceptions:**
1. A reduction in required fire-flow of up to 30 percent is allowed when the building is provided with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. A reduction in required fire-flow of up to 40 percent is allowed when the building is provided with an *approved ESFR sprinkler system* installed in accordance with this code and NFPA 13. A reduction in required fire-flow which exceeds the percentages listed above must be specifically approved by the *fire code official*. No reductions in required fire-flows are allowed for occupancies located within congested valve districts (including the fire district as defined in the International Building Code) or Group H occupancies unless specifically approved by the *fire code official*.
  2. Buildings subjected to the plan of services relative to Annexation Area #01-50, which are provided with an *approved ESFR sprinkler system* installed in accordance with this code and NFPA 13, may have limited fire-flow requirements commensurate to that available from the public water supply. Limitations are not applicable for occupancies located within congested valve districts (including the fire district as defined in the International Building Code) or Group H occupancies unless specifically approved by the *fire code official*.

**(c) BE IT FURTHER ORDAINED,** That the provisions of this ordinance are hereby severable. If any of these sections, provisions, sentences, clauses, phrases or parts are held unconstitutional or void by a court of competent jurisdiction the remainder of this ordinance shall continue in full force and effect.

**d) BE IT FURTHER ORDAINED,** That this Ordinance shall take effect from and after the date it shall have been passed by the Council, signed by the Chairman of the Council, certified and delivered to the Office of the Mayor in writing by the Comptroller, and become effective as otherwise provided by law.